WHAT IS CLAIMED IS:

1.   A method for scheduling work and delivery of material for mass-producing items in a factory comprising:

obtaining at least one outstanding customer order, wherein each outstanding customer of the

    at least one outstanding customer order includes an item ordered by a customer, and

    producing the item requires a required quantity of a required material;

determining a current state of an available inventory of at least one material from a plurality

    of material sources; and

periodically generating a work schedule and a material delivery schedule for producing the

    item using the at least one outstanding customer order and the current state of the

    available inventory, wherein

    the determining the current state of the available inventory is performed such that the

        determining the current state of the available inventory is completed

        immediately prior to the generating the work schedule and the material

        delivery schedule; and

    the obtaining the at least one outstanding customer order is performed such that the

        obtaining the customer order is completed immediately prior to the generating

        the work schedule and the material delivery schedule.

2.   The method of claim 1 wherein

the at least one outstanding customer order and the current state of the available inventory are

    posted continuously for the generating the work schedule and the material delivery

    schedule.

3.   The method of claim 1 wherein

the at least one outstanding customer order and the current state of the available inventory are

    posted continuously to an automated data warehouse.

4.   The method of claim 1 wherein the determining the current state of the

available inventory includes determining for each material of the at least one material of the

available inventory:

a material source of the plurality of material sources from which the material can be obtained,

    wherein the material source is updated continuously;

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6   an available quantity of the available material at the material source, wherein the available

7   quantity is updated continuously; and

8   an availability time of the available quantity of the material at the material source to each

9   operation of at least one operation of each manufacturing line of at least one

10   manufacturing line of the factory, wherein the availability time is updated

11   continuously.

1   5.   The method of claim 1 wherein

2   the obtaining the at least one outstanding customer order includes using a status for each

          customer order of at least one customer order, wherein the status for each customer

          order is updated continuously; and

    the status for each outstanding customer order corresponds to an outstanding status.

       6.   The method of claim 1 wherein

2   the available inventory comprises external inventory.

1   7.   The method of claim 1 wherein

2   the available inventory comprises work-in-progress inventory.

1   8.   The method of claim 1 wherein

2   the available inventory comprises in-transit inventory.

1   9.   The method of claim 1 wherein

2   the available inventory comprises in-house inventory.

1   10.   The method of claim 1 wherein

2   the periodically generating the work schedule and the material schedule includes generating

3   the work schedule and the material delivery schedule every two hours.

1   11.   The method of claim 1 wherein

2   a manufacturing shift comprises a number of hours less than or equal to eight; and

3   the periodically generating the work schedule and the material schedule includes generating

4   the work schedule and the material delivery schedule a plurality of times during the
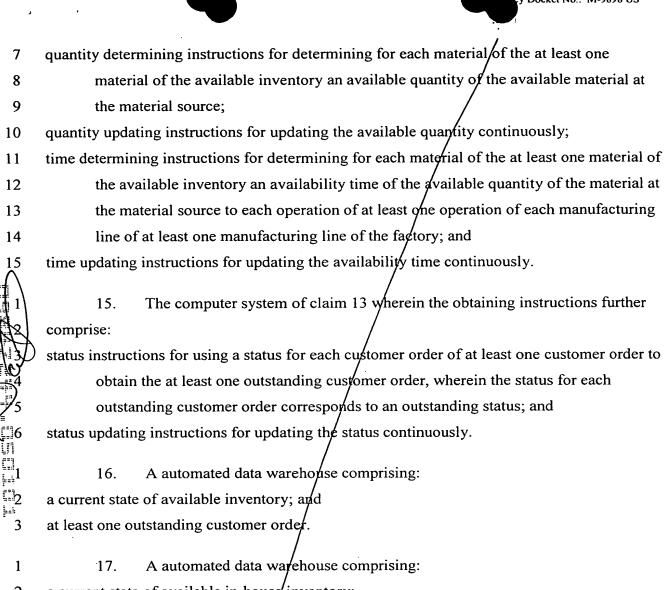
5   manufacturing shift.

1   12.   The method of claim 1 wherein

2   the plurality of material sources comprises an external material source, the external material

3   source providing an external inventory of a first material of the at least one material of

4   the available inventory; and

5   the determining the available inventory of the material includes using an external visibility

6   interface module to determine the available inventory of the first material in the

7   external inventory.

1   13.   A computer system comprising:

2   a processor; and

3   a memory, the memory comprising instructions, the processor for executing the instructions,

4   the instructions comprising:

5   obtaining instructions for obtaining at least one outstanding customer order, wherein

6   each outstanding customer of the at least one outstanding customer order

7   includes an item ordered by a customer, and producing the item requires a

8   required quantity of a required material;

9   determining instructions for determining a current state of an available inventory of at

10   least one material from a plurality of material sources; and

11   generating instructions for periodically generating a work schedule and a material

12   delivery schedule for producing the item using the at least one outstanding

13   customer order and the current state of the available inventory, wherein

14   the determining the current state of the available inventory is performed such

15   that the determining the current state of the available inventory is

16   completed immediately prior to the generating the work schedule and

17   the material delivery schedule; and

18   the obtaining the at least one outstanding customer order is performed such

19   that the obtaining the customer order is completed immediately prior to

20   the generating the work schedule and the material delivery schedule.

1   14.   The computer system of claim 13 wherein the determining instructions further

2   comprise:

3   source determining instructions for determining for each material of the at least one material

4   of the available inventory a material source of the plurality of material sources from

5   which the material can be obtained;

6   source updating instructions for updating the material source continuously;

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7   quantity determining instructions for determining for each material of the at least one
8   material of the available inventory an available quantity of the available material at
9   the material source;
10   quantity updating instructions for updating the available quantity continuously;
11   time determining instructions for determining for each material of the at least one material of
12   the available inventory an availability time of the available quantity of the material at
13   the material source to each operation of at least one operation of each manufacturing
14   line of at least one manufacturing line of the factory; and
15   time updating instructions for updating the availability time continuously.

     15.   The computer system of claim 13 wherein the obtaining instructions further
comprise:
     status instructions for using a status for each customer order of at least one customer order to
         obtain the at least one outstanding customer order, wherein the status for each
         outstanding customer order corresponds to an outstanding status; and
     status updating instructions for updating the status continuously.

     16.   A automated data warehouse comprising:
     a current state of available inventory; and
     at least one outstanding customer order.

     17.   A automated data warehouse comprising:
2   a current state of available in-house inventory;
3   a current state of in-transit inventory;
4   a current state of work-in-progress inventory;
5   a current state of external inventory; and
6   at least one outstanding customer order.

1   18.   A computer readable storage medium comprising computer instructions for:
2   obtaining at least one outstanding customer order, wherein each outstanding customer of the
3   at least one outstanding customer order includes an item ordered by a customer, and
4   producing the item requires a required quantity of a required material;
5   determining a current state of an available inventory of at least one material from a plurality
6   of material sources; and

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periodically generating a work schedule and a material delivery schedule for producing the
item using the at least one outstanding customer order and the current state of the
available inventory;

determining the current state of the available inventory such that the determining the current
state of the available inventory is completed immediately prior to the generating the
work schedule and the material delivery schedule; and

obtaining the at least one outstanding customer order such that the obtaining the customer
order is completed immediately prior to the generating the work schedule and the
material delivery schedule.